47 CSR 2. REQUIREMENTS GOVERNING WATER QUALITY STANDARDS

RESPONSE TO COMMENTS

On February 8, 2013, the Division of Water & Waste Management (DWWM) commenced a forty-five day public comment period and subsequently held a public hearing on March 27, 2013 to accept oral comments on an emergency rule to address the dissolved aluminum criteria and human health category A beryllium criterion in 47CSR2. DWWM also accepted written comments through the conclusion of the public hearing on Wednesday, March 27, 2012. Thirty-four commenters submitted written comments regarding the emergency rule and six commenters provided verbal comments, two of which also supplemented their written comments. Also, four written comments were received after the deadline and are included with the rule package but were not considered for response. DWWM addresses these comments below.

1. COMMENTER: Roger and Janey Wilmoth

COMMENT A: *Dissolved Aluminum Criteria*

The commenters state the western mining waters are significantly different in chemical composition than eastern mining states. They believe the studies on aluminum toxicity that are presented in western states are highly unlikely to be directly transferrable to the conditions in eastern states. They also believe switching from regulating total aluminum to only regulating the dissolved aluminum reflects a significant weakening of the standard and promotes significant degradation of the receiving stream. Therefore they oppose this

revision and request necessary toxicity studies be conducted and then propose appropriate changes.

RESPONSE A: In the analysis of the initial approach, the DWWM requested that the applicant utilize the toxicity study completed by Cleveland, Little, Wiedmeyer and Buckler (1989), which included toxicity studies on brook trout, and this study was included in the calculation of the final equation. DWWM also consulted with EPA staff on the applicability and transferability of the studies to this region and confirmed that they can be used for this criteria approach. Per the comment regarding the use of dissolved versus total for the aluminum standard, it is the policy of the EPA Office of Water that the use of dissolved metal to set and measure compliance with water quality standards is the recommended approach, because dissolved metal more closely approximates the bioavailable fraction of metal in the water column than total recoverable metal. This conclusion regarding metals bioavailability is supported by a majority of the scientific community within and outside EPA. It should also be noted that the current aluminum water quality standard is listed in the dissolved form.

2. COMMENTER: Pamela F. Faggert - Dominion

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter supports the passage of the Emergency Rule and agrees that without its passage, members of the regulated community may incur unnecessary treatment costs and subject some of the State's water to inclusion on the EPA's list of impaired water when such waters are not adversely impacted. The commenter concurs with the scientific studies and feels the proposed hardness-based approach offers a water quality calculation that more appropriately relies on site-specific characteristics as opposed to the existing one-size-fits-all numeric criteria. Also,

they feel this approach will offer certain increased protections to the aquatic environment than provided under the existing standards with respect to low hardness environments.

RESPONSE A: The DWWM agrees with the commenter and believes the emergency rule will continue to protect the designated uses of West Virginia rivers and streams

3. COMMENTER: Allen Johnson

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenters feels obligated to question rulings that undercut established science in order to protect an extractive industry and from a theological standpoint feels pollution that can be substantially detrimental to ecological health and human health is morally unacceptable and sinful.

RESPONSE A: The agency does not believe that this action is "undercutting established science" as was stated in the comment. Since the release of the current recommended ambient water quality criteria for aluminum in 1988, several acute and chronic aluminum toxicity studies have been published in the scientific literature. These toxicity studies meet the EPA guidelines for ambient water quality criteria development and also result in additional data being available for deriving an aluminum acute-chronic ratio. These studies also present evidence that a scientifically defensible relationship exists between the stream hardness concentration and the toxicity of dissolved aluminum in waters within a pH range of greater-than or equal to 6.5 to less-than or equal to 9.0. Therefore expressing the aluminum criteria on the basis of a hardness equation, rather than as a single fixed value, is now warranted. The information and data presented in these studies has been vetted and approved by EPA, and is considered acceptable for updating

the aluminum criteria, which will protect the aquatic life use by tightening aluminum standards in low hardness waters as well as prevent overprotection in high hardness streams.

The beryllium revision in the emergency rule is applicable to the human health Category A and represents the maximum contaminant level goal that is recommended by EPA in absence of a federal national recommended water quality criteria. The current beryllium aquatic life criteria of 130µg/l are not being changed.

4. COMMENTER: Jean McAulay

COMMENT A: *Dissolved Aluminum Criteria*

The commenter expresses her opposition to the Emergency rule that would allow higher levels of aluminum in the water and feels it is important to safeguard the water in the streams and rivers of West Virginia.

RESPONSE A: See Response to Comment 3.A

5. COMMENTER: Gary R. Zuckett – WV Citizen Action Group

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter believes that the WV DEP Division of Water and Waste Management's filing an emergency rule for aluminum and beryllium will weaken state water quality standards for no plausible reason and significantly subverts the legislative intent of the emergency rule process by circumventing adequate public participation and scrutiny in the rule making process. The commenter feels the proposed revisions are draconian and equate to an exponential increase over current standards for aluminum and beryllium.

RESPONSE A: See Response to Comment 3.A. and 6.B.

6. COMMENTER: Carol Nix

COMMENT A: *Dissolved Aluminum Criteria*

The commenter inquires as to field studies conducted that support this criteria. The commenter also presents several questions:

Does the science support allowing increased aluminum at all pH levels?

Upon what does the agency base their science?

Are there citations somewhere that I (the commenter) missed?

RESPONSE A: Waters with a pH of less than 6.5 are below the acceptable pH range identified by EPA, and such waters favor the dissolution of aluminum into more bioavailable monomeric and ionic forms. Consistent with EPA's existing criteria for aluminum, the updated aluminum criteria will only consider toxicity studies conducted with in the pH range of 6.5 and 9.0 and is reflected in the proposed criteria where the hardness based equation can only be utilized in waters where pH is within this 6.5 to 9.0 range.

The information concerning the additional studies used can be found in GEI Consultant's report "Updated Freshwater Aquatic Life Criteria for Aluminum" (August 2011) and is available via the internet (http://www.dep.wv.gov) and/or upon request. Further information can also be found in the Response to 3.A.

The revised aluminum standards are based on the protection of the aquatic life of West Virginia rivers and streams. This data is considered acceptable for updating the aluminum criteria, which will protect this use by tightening aluminum standards in low hardness waters as well as prevent overprotection in high hardness streams without regard to current "citations".

COMMENT B: *Emergency Rule*

The commenter feels the rule change in the manner of an emergency rule undermines the credibility of the DEP when it circumvents normal procedures and also undermines the public's trust in the department. The commenter believes for this reason alone the changes should be abandoned.

RESPONSE B:

As found in the *West Virginia's State Administrative Procedures Act*, an emergency rule may be promulgated when an emergency exists. W. Va. Code §29A-3-15(f) defines emergency narrowly:

"For the purposes of this section, an emergency exists when the promulgation of an emergency rule is necessary (1) for the immediate preservation of the public peace, health, safety or welfare, (2) to comply with a time limitation established by this code or by a federal statute or regulation, or (3) to prevent substantial harm to the public interest."

When an agency proposes an emergency rule, it is filed with the Secretary of State and Legislative Rule Making Review Committee The Secretary of State's office is required by law (W. Va. Code §29A-3-15) to review all emergency rules to determine the following:

- That the scope of statutory authority has not been exceeded
- Whether there exists a justified emergency
- Whether the agency complied with these procedures

The Secretary of State has 42 days to review the rule and decide if an emergency truly exists. The DWWM filed the emergency rule with the Secretary of State on January 30, 2013 and a notice of a public hearing on the proposed rule on February 6, 2013. A 45 day comment period was scheduled beginning February 8, 2013 and continued until the public hearing on March 27, 2013. On March 12, 2013 the Secretary of State concurred with and approved the emergency rule based on the

prevention of "substantial harm to the public interest". However, the emergency rule will need approval by EPA before it becomes effective. It should also be noted that prior to the filing of the emergency rule, DWWM conducted several public meetings and presented information concerning the proposed revisions (refer to State Register June 8, August 24, and November 2, 2012; presentation slides for the public meetings can be found on the DWWM water quality standards meetings archive page). Also, the DWWM solicited input from the public from September 11 to October 10, 2012 on potential revisions to the state's water quality standards and presented an overview of the submitted comments during the November 2012 public meeting.

7. COMMENTER: Marian Buckner

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter strongly urges the DEP to oppose the emergency rule that weakens water quality standards for aluminum and beryllium. The commenter feels this emergency rule fails to protect the designated uses of WV streams as required under the federal Clean Water Act.

RESPONSE A: See Response to Comment 3.A.

8. COMMENTER: Barbara Frierson

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter strongly opposes weakening the WV water quality standards for aluminum and beryllium especially doing so in the invalid and underhanded way through the emergency rule process.

RESPONSE A: See Response to Comment 3.A. and 6.B.

COMMENT B: *Emergency Rule*

The commenter believes the proposed changes are not based on any recognizable emergency and the agency is attempting to pass such a rule change without providing extensive public participation and comment. The commenter demands that all such proposals to go at least through the normal rulemaking process.

RESPONSE B: See Response to Comment 6.B. It should also be noted that this change will be required to go through the normal rule making process and included in the 2014 Triennial Review.

9. COMMENTER: Paul Baker

COMMENT A: *Dissolved Aluminum Criteria*

The commenter believes that there is not sufficient scientific evidence to go through with this rule change.

RESPONSE A: See Response to Comment 3.A.

10. COMMENTER: Rita Lewis

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter opposes the proposed emergency rule and feels it will harm aquatic life and human health by lowering standards for acute and chronic aluminum toxicity and beryllium. The commenter believes any changes should go through the normal rulemaking process.

RESPONSE A: See Response to Comment 3.A. It should also be noted that this change will be required to go through the normal rule making process and included in the 2014 Triennial Review.

11. COMMENTER: Steve Malafy

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter is against the emergency rule that they fells will weaken water quality standards and endanger aquatic wildlife. The commenter believes the present standards should be upheld.

RESPONSE A: See Response to Comment 3.A.

12. COMMENTER: Carl Bolyard

COMMENT A: *Dissolved Aluminum Criteria*

The commenter opposes the proposed emergency rule that would allow greater than a 13-fold and 46-fold increase over the current criteria for acute and chronic aluminum toxicity to aquatic life respectively. The commenter feels the proposed rule does not have the science to show that it will protect the designated use of WV streams as required under the federal Clean Water Act and will cause a conflict with the EPA.

RESPONSE A: See Response to Comment 3.A.

COMMENT B: *Emergency Rule*

The commenter believes the emergency rule does not provide adequate public participation in the rule making process. The commenter states that there was only one hearing, at the capitol, and this rule is being pushed through on a short time frame without a through comment period. The commenter indicates that there is no emergency that justifies the promulgation of this rule.

RESPONSE B: See Response to Comment 8.B. and 6.B.

13. COMMENTER: Shannon Holliday

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter opposes the ruling that would weaken WV water quality standards and feels the WVDEP has an obligation to protect the public's interest.

RESPONSE A: See Response to Comment 3.A.

14. COMMENTER: Mark J. Frondorf

COMMENT A: *Dissolved Aluminum Criteria*

The commenter opposes this emergency rule and feels there is no justification to impose a rule that will weaken water quality standards for aluminum toxicity to aquatic life. The commenter believes the emergency rule will fail to protect WV streams as required under the federal Clean Water Act and fails to protect the public's interest by protecting the commons.

RESPONSE A: See Response to Comment 3.A.

COMMENT B: *Emergency Rule*

The commenter believes the WVDEP has failed to provide adequate public participation in the rulemaking process.

RESPONSE B: See Response to Comment 6.B. and 8.B.

15. COMMENTER: John Kobak

COMMENT A: *Dissolved Aluminum Criteria*

The commenter opposes the proposed emergency rule relative to quality standards for aluminum toxicity to aquatic life. The commenter believes there is no

emergency that justifies the proposed revisions of this rule and there is no science showing that the changes protect designated stream use and public health.

RESPONSE A: See Response to Comment 3.A. and 6.B

16. COMMENTER: Scott Aylor

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter is opposed to easing pollution restrictions to WV streams and rivers.

RESPONSE A: See Response to Comment 3.A.

17. COMMENTER: Marjorie A. Clarkson

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter is opposed to lowering the water quality standards for aluminum toxicity and Category A for beryllium.

RESPONSE A: See Response to Comment 3.A.

18. COMMENTER: Donald Briggs

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter opposes this emergency rule that would weaken water quality standards for WV streams. The commenter believes the emergency rule will fail to protect the designated use of WV streams as required under the federal Clean Water Act and fails to protect the long term public's interest.

RESPONSE A: See Response to Comment 3.A.

COMMENT B: *Emergency Rule*

The commenter believes the WVDEP needs to increase public participation in the rulemaking process.

RESPONSE B: See Response to Comment 8.B.

19. COMMENTER: Richard T. Clark

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter opposes any change in regulations that would weaken water quality standards for WV streams.

RESPONSE A: See Response to Comment 3.A.

20. COMMENTER: Lee Orr – Trout Unlimited

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter opposes any reduction of water quality standards that could potentially impact protections to trout waters. The commenter is also concerned that the changes to the dissolved aluminum standard are based on pH and hardness levels which are not static on individual streams and can change dramatically. Also, the commenter is concerned that the changes to the beryllium criterion are based on drinking water standards rather that those intended to protect aquatic health.

RESPONSE A: The studies present evidence that a scientifically defensible relationship exists between the stream hardness concentration and the toxicity of dissolved aluminum in waters within a pH range of greater-than or equal to 6.5 to less-than or equal to 9.0. Therefore expressing the aluminum criteria on the basis of a hardness equation, rather than as a single fixed value, is now warranted and it is considered acceptable for updating the aluminum criteria which will protect the

aquatic life use by tightening aluminum standards in low hardness waters as well as prevent overprotection in high hardness streams.

Since it has been found that aluminum toxicity is significantly affected by site-specific factors, a number of programmatic challenges are presented. The DWWM has the key role in the risk management process of balancing these factors in the management of its water programs. The site-specific nature of this issue will need a permit-by-permit approach to implementation.

The beryllium revision in the emergency rule is applicable to the human health Category A and represents the maximum contaminant level goal that is recommended by EPA in absence of a federal national recommended water quality criteria. The current beryllium aquatic life criteria of 130µg/l is not being changed. Also see response to 3.A.

21. COMMENTER: David Hepler

COMMENT A: *Dissolved Aluminum Criteria*

The commenter opposes the proposed revisions of standards for aluminum toxicity to aquatic life and feels this emergency rule will fail to protect the designated use of WV streams as required under the federal Clean Water Act.

RESPONSE A: See Response to Comment 3.A.

22. COMMENTER: Kathryn A. Stone

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter believes the emergency rule will fail to protect the designated use of WV streams as required under the federal Clean Water Act and fails to protect the public interest.

RESPONSE A: See Response to Comment 3.A.

COMMENT B: *Emergency Rule*

The commenter believes the WVDEP failed to provide participation in the rule making process.

RESPONSE B: See Response to Comment 6.B. and 8.B.

23. COMMENTER: Sam Golston

COMMENT A: *Dissolved Aluminum Criteria*

The commenter believes the standard should be raise in order to protect the drinking water due to aluminum being a contributor to Alzheimers disease.

RESPONSE A: The revised aluminum criteria are applicable to the protection of the aquatic life use only.

24. COMMENTER: Bill Reger-Nash

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter opposes the proposed emergency rule that would allow greater than a 13-fold and 46-fold increase over the current criteria for acute and chronic aluminum toxicity to aquatic life respectively. The commenter feels the proposed rule fails to protect the designated use of WV streams as required under the federal Clean Water Act and protect the public's interest. The commenter believes

RESPONSE A: See Response to Comment 3.A.

COMMENT B: *Emergency Rule*

The commenter believes the WVDEP failed to provide public participation in the rule making process and there is no emergency that justifies the promulgation of this rule.

RESPONSE B: See Response to Comment 6.B and 8.B.

25. COMMENTER: Sara Wilts

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter opposes the proposed emergency rule that would allow greater than a 13-fold and 46-fold increase over the current criteria for acute and chronic aluminum toxicity to aquatic life respectively. The commenter feels the proposed rule fails to protect the designated use of WV streams as required under the federal Clean Water Act and protect the public's interest. The commenter believes the WV criteria is more lenient that the equation used in Colorado due to the fact that it applies to dissolved aluminum rather than total recoverable aluminum in Colorado. The commenter also suggests the use of the Biotic Ligand Model which takes all of the important aspects of water chemistry into account as an alternative for some metals criteria.

RESPONSE A: See Response to Comment 3.A. Also, the Biotic Ligand Model for aluminum is in development and not currently available. If and when EPA approves this method DWWM can consider this approach as a potential standard change.

COMMENT B: *Emergency Rule*

The commenter believes the WVDEP failed to provide public participation in the rule making process.

RESPONSE B: See Response to Comment 6.A and 8.B.

26. COMMENTER: Charles L. Harris

COMMENT A: *Dissolved Aluminum Criteria*

The commenter believes any kind of relaxed standard should only be considered after careful scientific review that indicates no harm will be done. The commenter suggests that plans to implement this rule are suspended and the current standard for aluminum maintained as is. The commenter provides the following additional comments:

> *Aluminum is not very soluble in water with a pH over 6, which means it is not available to be toxic to fish in waters with a few milligrams per liter of alkalinity*
>
> *When in solution, aluminum ions cause osmoregulation and respiration problems for fish, resulting in mortality*
>
> *Aluminum toxicity is thought to be highest at the juvenile life stages for salmonids (versus yolk-sac or adults)*
>
> *The paper by Steve McCormick showed how episodic aluminum toxicity to Atlantic salmon smolts increases with lower pH*
>
> *The proposed rule change reference a study but provides no reference to that study. It is important that this study be evaluated by outside parties.*
>
> *Any changes to the criteria in waters with a pH below 6.5 would be of great concern.*

RESPONSE A: See Response to Comment 3.A.

27. COMMENTER: Richard McGraw

COMMENT A: *Dissolved Aluminum Criteria*

The commenter believes any kind of relaxed standard should only be considered after careful scientific review that indicates no harm will be done. The commenter suggests that plans to implement this rule are suspended and the current standard for aluminum maintained as is. The commenter provides the following additional comments:

Aluminum is not very soluble in water with a pH over 6, which means it is not available to be toxic to fish in waters with a few milligrams per liter of alkalinity

When in solution, aluminum ions cause osmoregulation and respiration problems for fish, resulting in mortality

Aluminum toxicity is thought to be highest at the juvenile life stages for salmonids (versus yolk-sac or adults)

The paper by Steve McCormick showed how episodic aluminum toxicity to Atlantic salmon smolts increases with lower pH

The proposed rule change reference a study but provides no reference to that study. It is important that this study be evaluated by outside parties.

Any changes to the criteria in waters with a pH below 6.5 would be of great concern.

RESPONSE A: See Response to Comment 3.A.

28. COMMENTER: Jeff Witten

COMMENT A: *Dissolved Aluminum Criteria*

The commenter believes any kind of relaxed standard should only be considered after careful scientific review that indicates no harm will be done. The commenter suggests that plans to implement this rule are suspended and the current standard for aluminum maintained as is. The commenter provides the following additional comments:

Aluminum is not very soluble in water with a pH over 6, which means it is not available to be toxic to fish in waters with a few milligrams per liter of alkalinity

When in solution, aluminum ions cause osmoregulation and respiration problems for fish, resulting in mortality

Aluminum toxicity is thought to be highest at the juvenile life stages for salmonids (versus yolk-sac or adults)

The paper by Steve McCormick showed how episodic aluminum toxicity to Atlantic salmon smolts increases with lower pH

The proposed rule change reference a study but provides no reference to that study. It is important that this study be evaluated by outside parties.

Any changes to the criteria in waters with a pH below 6.5 would be of great concern.

RESPONSE A: See Response to Comment 3.A.

29. COMMENTER: Thomas M. Boggs – West Virginia Chamber of Commerce

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter applauds the agency's work in developing these revised criteria which are scientifically justified and make West Virginia's regulatory approach to these criteria consistent with other areas of the country.

RESPONSE A: See Response to Comment 2.A.

30. COMMENTER: Angie Rosser – West Virginia Rivers Coalition

COMMENT A: *Dissolved Aluminum Criteria*

The commenter opposes the revisions to the aluminum water quality criteria as set out in the proposed emergency rule. The commenter is concerned about the flawed process in which the rule was presented and the lack of scientific justification for the revision. The commenter believes this kind of proposal required much more substantial study and consideration of the potential impact on aquatic life, public health, recreation and tourism, and long-term costs to the state and its taxpayers.

RESPONSE A: See Response to Comment 3.A.

31. COMMENTER: Marc E. Kolanz – Materion Brush Inc.

COMMENT A: *Beryllium Criteria*

The commenter supports the proposed revision for beryllium and feels it is a step in the right direction but believes the proposed new standard is more conservative than necessary. The commenter states the proposed overly protective standard of 4µg/l is at least a start in eliminating adverse consequences to both the regulated

community and the agency while adequately protecting human health and the environment.

RESPONSE A: For a pollutant for which EPA has not published a recommended water quality criterion for "water and organisms" and for which EPA has promulgated a MCLG, EPA generally recommends the MCLG for non-carcinogenic pollutants. The MCLG represents the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur and that allows an adequate margin of safety. The maximum contaminant level goal (MCLG) is derived in a three-step process that includes the calculation of a reference dose (RfD). The RfD is an estimate of the amount of a chemical that a person can be exposed to on a daily basis that is not anticipated to cause adverse systemic health effects over the person's lifetime. The DWWM feels the proposed beryllium criterion of 0.004 mg/L is needed to provide for the protection of the human health use of surface water.

32. COMMENTER: James J. Van Gundy

COMMENT A: *Dissolved Aluminum Criteria*

The commenter believes the agency's action is not supported by the available science. The commenter states that in the absence of solid information concerning the relationship between the various chemical species of aluminum and WV's various species of aquatic life, effect on dynamic streams systems, complexity of aluminum water chemistry and watershed disturbance impact, prudence demands that water quality criteria and standards be established in an environmentally conservative manner. Also, the standards of Colorado and New Mexico are based on total recoverable aluminum while the agency's proposed aluminum standard is based on dissolve aluminum only making WV's standard considerably more

permissive. Further study is needed on the issue of aluminum toxicity in preparation for the upcoming triennial review of water quality standards.

RESPONSE A: See Responses to Comment 1.A.and 3.A.

COMMENT B: *Emergency Rule*

The commenter believes the emergency action is unlawful under WV law because the agency has not demonstrated that an emergency that threatens "substantial harm to the public interest" exists in this situation. The commenter also states the agency has acted in defiance of the spirit if not the letter of the provisions of the federal Clean Water Act governing public participation in agency decision making.

RESPONSE B: See Response to Comment 6.B.

33. COMMENTER: Margaret James – Appalachian Mountain Advocates

COMMENT A: *Dissolved Aluminum Criteria*

The commenter strongly opposes WVDEP's proposed revisions to the aluminum water quality criteria. The commenter believes the proposed rule change will significantly weaken the aluminum criteria and WVDEP lacks the sufficient information to promulgate hardness based aluminum criteria. The commenter feels aluminum toxicity is complex and WVDEP has not considered any of the complex interactions affecting aluminum toxicity. Also, the standards of Colorado and New Mexico are based on total recoverable aluminum while the agency's proposed aluminum standard is based on dissolved aluminum only making the Colorado and New Mexico criteria more stringent. The commenter believes WVDEP must abandon the flawed aluminum criteria.

RESPONSE A: See Responses to Comment 1.A.and 3.A.

COMMENT B: *Emergency Rule*

The commenter believes there is no emergency that justifies the promulgation of this rule and the agency failed to provide adequate public participation.

RESPONSE B: See Response to Comment 6.B.

34. COMMENTER: Jason D. Bostic – WV Coal Association

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter fully supports WVDEP's efforts to adopt a hardness-based standard for aluminum to better protect aquatic life by reflecting the actual toxicity and simplifying NPDES compliance with the aluminum criteria. Also, the commenter completely supports WVDEP's effort in the emergency rule to adopt the beryllium MCL of 0.004 mg/l as the human health Category A criterion and feels the present criterion is not scientifically justifiable.

RESPONSE A: See Response to Comment 2.A.

35. COMMENTER: James Kotcon – WV Sierra Club

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter states that beryllium is a carcinogen and has a wide range of adverse health effects. The commenter believes the agency needs to go through a rational deliberative process before dramatically increasing the amount of known carcinogens in public drinking water supplies.

RESPONSE A: See Response to Comment 31.A. It should also be noted that EPA recognized beryllium as a carcinogen in air and not in water. Both EPA and OSHA have exposure and air release standards and these are not being revised nor changed by this rule action.

COMMENT B: *Hardness and total dissolved solids (TDS)*

The commenter is concerned that there is no water quality standard for hardness or total dissolved solids or any of the specific minerals that make up hardness and that the science does not justify the change to the aluminum standard. The commenter believes some type of limit on total dissolved solids and the amount of hardness should be imposed or limiting hardness to a natural background level.

RESPONSE B: The comment regarding TDS is outside the scope of this proposed rule and, therefore, no response is required. With regard to the comment on the natural hardness background levels, this issue will be addressed via the permitting process which will take into account such things as natural background levels and downstream protection.

COMMENT C: *Emergency Rule*

The commenter believes there has been a deliberate attempt by WVDEP to avoid meaningful input from the public. The commenter also states that the emergency rule was released without any consultation with the environmental community and a public hearing was not scheduled until after the rule already became effective which clearly illustrates that this public comment process will not provide any meaningful input.

RESPONSE C: See Response to Comment 6.B.

36. COMMENTER: Don Garvin

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter expressed disappointment in the WVDEP and the filing of the emergency rule due to the lack of discussion of the issue in the water quality

meetings during the last six months/year. The commenter also believes there is no emergency or scientific justification.

RESPONSE A: See Response to Comment 6.B.

37. COMMENTER: Bill Price

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter feels the emergency rule is about protecting the profits of the coal industry and not the water quality standards and the health of the people in the state. The commenter believes the emergency is the ongoing and growing health emergency in communities that may be impacted by mountaintop removal coal mining and fracking.

RESPONSE A: See Response to Comment 3.A.

A portion of this comment is beyond the scope of the proposed criteria revisions and therefore, requires no response.

38. COMMENTER: Bill Goodwin

COMMENT A: *Dissolved Aluminum and Beryllium Criteria*

The commenter believes that there should be compliance of regulations rather than changing them.

RESPONSE A: See Response to Comment 6.A.